

REMARKS

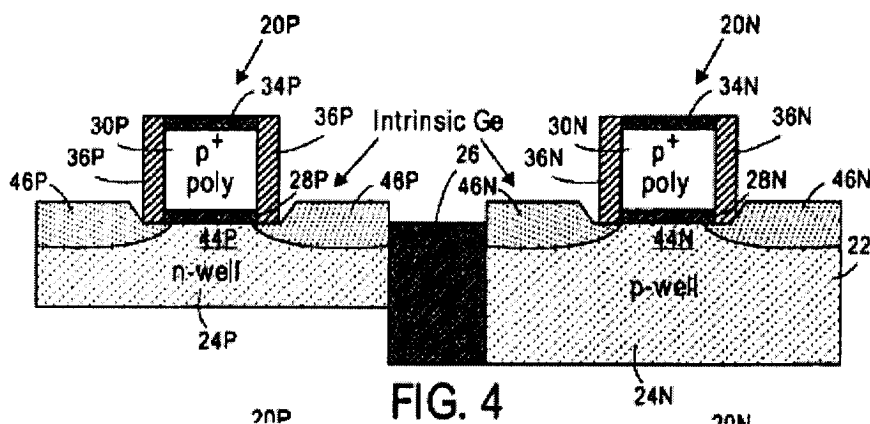
This Amendment is being submitted concurrently with a Request for Continued Examination (RCE). Claims 1, 16, 28, 38, 44 and 47 have been amended. Claims 1-49 are presently pending in the application. No new matter has been added by way of the foregoing amendment. Further and favorable consideration of the application is respectfully requested.

§ 102 Rejection of Claim 1

Claims 1, 11, and 44 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. App. No. 2005/0079660 to Murthy, et al. ("Murthy").

The Examiner argues that "one of ordinary skill in the art would have no difficulty to recognize that the bottom portions of the source/drain regions 46 N/P formed within the recesses 40 N/P shown in Fig. 3 are 'sunken area' that fall below the surface of the substrate 22." Advisory Action, pg. 2. Emphasis added. The Examiner continues "[f]urthermore, Murthy clearly states at paragraph [0031] that '...The source and drain regions 46P are formed by epitaxially growing pure germanium with the source and drain recesses 40P. The source and drain regions 46N are formed by growing pure germanium within the source and drain recesses 40N.'" Id.

Murthy figure referenced by the Examiner is reproduced below.



Claim 1, as amended, requires “wherein a first one of the NMOS and PMOS devices includes first source/drain regions recessed within the surface, wherein the first source/drain regions are disposed entirely below the surface of the substrate.” The Applicants respectfully submit that Murthy does not provide for a recessed source and drain region disposed entirely below the surface of the substrate. The Examiner indicates the bottom portion of the region provides the recessed source/drain, however, the claims as amended require the source/drain region to be entirely below the surface. As is illustrated in Fig. 1 of Murthy above, the source/drain regions 46 N/P extend above the substrate surface. Therefore, for at least this reason the claim is allowable.

Furthermore, even assuming the source/drain regions 46 N/P were considered recessed and disposed entirely in the substrate, which is clearly not the case, then the referenced Murthy embodiment does not provide for the second source/drain regions which extend above the substrate 22 as also provided in the claim.

Claim 44 as amended requires “wherein a first one of the NMOS and PMOS devices includes first source/drain regions recessed within the surface, wherein the entire first source/drain region is recessed within the surface; and wherein a second one of the NMOS and PMOS devices includes second source/drain regions at least partially extending above the surface.” As described above with reference to claim 1, the cited portions of Murthy do not provide for the entire s/d region being recessed within the surface of a first s/d and a second s/d region partially extending above the surface. Therefore, claim 44 is allowable for at least these same reasons.

§103 Rejections

The Examiner has rejected claims 2-10, 12-43, and 45-49 under various combinations of art including Murthy.

In *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007), the Court stated that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.” *Id.* at 1741 (emphasis added).

As the PTO recognizes in MPEP §2142:

... The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness...

In the present application, a *prima facie* case of obviousness does not exist for the claims as herein amended for the reasons set forth below.

1. The Examiner has not shown that all words in the claim have been considered

MPEP 2143.03 states that “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.” Quoting *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970). However, in the present matter, the Examiner has not shown that all words in the claim have been considered.

Independent claim 16 requires ...

a first gate interposing the first source/drain regions and having a first gate height over the surface, wherein the first source and drain regions are disposed entirely below an imaginary plane extending from the interface of the gate and the substrate; and wherein a second one of the NMOS and PMOS devices includes: second source/drain regions at least partially extending above the surface, and extending at least partially above the imaginary plane extending from the interface of the gate and the substrate

As discussed above with reference to claim 1, the cited portions of Murthy do not provide for a source/drain region disposed entirely below an imaginary plane extending from the interface of the gate and the substrate, and a second source/drain region extending at least partially above this plane. Neither the Bohr reference nor the Dawson reference cited by the Examiner in the rejection of claim 16 cure this deficiency. Accordingly, Applicants respectfully request that the Examiner withdraw the § 103 rejection of claim 16, as amended, and the claims that depend therefrom for at least this reason.

Independent claim 28 requires,

first source/drain regions recessed within the substrate, wherein a first contact coupled to the first source/drain region extends below the surface of the substrate; second source/drain regions at least partially extending above the surface;

Similarly to as discussed above with reference to claim 1, the cited portions of Murthy do not provide for a first contact coupled to the first source/drain region extends below the surface of the substrate. Though Fig. 4 does not explicitly include a contact, even assuming arguendo, a contact would be provided to regions 46 P/N, such a contact would not extend below the surface of the substrate as the 46 P/N region itself extends above the substrate 22. Neither the Bohr reference nor the Dawson reference cited by the Examiner in the rejection of claim 28 cure this deficiency. Accordingly, Applicants respectfully request that the Examiner withdraw the § 103 rejection of claim 28, as amended, and the claims that depend therefrom for at least this reason.

Independent claim 38, as amended requires:

wherein one of the first and second source/drain regions is disposed entirely within the substrate, and wherein one of first and second source/drain regions extends from the surface of the substrate.

As described above with reference to claim 1, Murthy at least does not disclose a source/drain region entirely disposed within a substrate and a second source/drain region extending from the surface of the substrate. Yeo, referenced by the Examiner in the rejection of claim 38, fails to cure this deficiency. For at least this reason, claim 38 is allowable.

Dependent Claims

Dependent claims 2-15, 17-27, 29-37, 39-43, 45-46, and 48-49 depend from and further limit independent claims 1, 16, 28, 38, 44, and 47 and therefore are deemed to be patentable over the prior art.

Conclusion

It is believed that all claims are in condition for allowance. Favorable consideration and an early indication of allowability are respectfully requested.

Should the Examiner deem that an interview with Applicants' undersigned attorney would expedite consideration, the Examiner is invited to call the undersigned attorney at the telephone number indicated below.

Respectfully submitted,



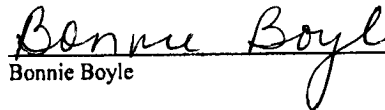
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Bonnie Boyle